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EXAMINER

MOORE JR, MICHAEL J

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2616

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/709,532
Filing Date: November 13, 2000
Appellant(s): BOWES, MICHAEL J.

Majid S. AlBassam (Reg. No. 54,749)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 13, 2006 appealing from the
Office action mailed June 9, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

U.S. 5,774,673	BEUK et al.	6-1998
U.S. 6,611,495	MEYER et al.	8-2003

(9) Grounds of Rejection

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The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4-12, 14, and 16-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Beuk et al. (U.S. 5,774,673) ("Beuk"). *Beuk* teaches all of the limitations of the specified claims with the reasoning that follows.

Regarding claim 1, "transmitting a packet request message from a first station to a second station" is anticipated by the activation message 500 sent by apparatus 100 (first station) to apparatus 101 (second station) of Figure 2.

"Determining if the packet request message is valid" is anticipated by the verification whether a message has been received correctly by message receiving means 210 of Figure 2 as described in column 13, lines 24-25.

"Transmitting a request acknowledge message from the second station to the first station" is anticipated by the acknowledgement frame 502 sent from apparatus 101 (second station) to apparatus 100 (first station) of Figure 2.

"Determining if the request acknowledge message is valid" is anticipated by the acknowledgement frame comparison spoken of in column 4, lines 38-48.

"Wherein the step of transmitting a packet request message further comprises the step of generating the packet request message" is anticipated by the activation

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message 500 sent by apparatus 100 (first station) to apparatus 101 (second station) of Figure 2.

“The step of generating the packet request message comprising generating a request non-payload bit string corresponding to a pre-programmed packet request register” is anticipated by the TYPE fields (request non-payload bit string) of frames 610 and 630 shown in Figure 3 that correspond to a particular receiving means (register) 210 of Figure 2.

“Wherein the packet request message and the request acknowledge message each include a control bit string, an identification bit string, and at least one parity bit” is anticipated by the TYPE fields (control bit string) shown in the frames of Figure 3 and spoken of on column 12, lines 36-43, the channel fields (identification bit string) shown in frames 630 and 640 of Figure 3 and spoken of on column 11, line 66 – column 12, line 2, and the parity bits comprised in a message frame shown in the frames of Figure 3 and spoken of in column 13, lines 25-30 as well as the one bit ACK field (parity bit) in the acknowledgement frames 620 and 640 of Figure 3.

“The control bit string identifies whether a frame is a control frame or a data frame” is anticipated by the TYPE fields shown in Figure 3 and spoken of on column 12, lines 36-43 that are used to distinguish between an acknowledgement frame (control) and a message frame (data).

Lastly, “the identification bit string correlates the packet request message with a corresponding request acknowledge message” is anticipated by the channel field (identification bit string) shown in group frame 630 (packet request message) of Figure

3 that is copied (correlates) to the channel field of acknowledgment frame 640 (request acknowledgement message) of Figure 3 and that is used to filter acknowledgement messages as spoken of on column 4, lines 38-48 and column 12, lines 19-28.

Regarding claim 2, "wherein the generated packet request message includes a request control code group and a request data code group" is anticipated by the TYPE fields (request control code group) of frames 610 and 630 shown in Figure 3 as well as the DATA fields (request data code group) of frames 610 and 630 shown in Figure 3.

Regarding claim 4, "generating a request data code group bit string having at least one request parity bit and at least one request identification bit" is anticipated by the parity bits comprised in a message frame spoken of in column 13, lines 25-30 as well as the channel fields (identification) shown in frames 610 and 630 of Figure 3.

Regarding claim 5, "generating a first request parity bit corresponding to a parity of said request control code group bit string and a second request parity bit corresponding to a parity of said request data code group" is anticipated by the parity bits comprised in a message frame spoken of in column 13, lines 25-30.

Regarding claim 6, "the step of generating the request acknowledge message" is anticipated by the acknowledgement frame 502 sent from apparatus 101 (second station) to apparatus 100 (first station) of Figure 2. "Wherein the request acknowledgement message includes an acknowledge control code group and an acknowledge data code group" is anticipated by the TYPE fields (acknowledge control code group) of frames 620 and 640 shown in Figure 3 as well as the ACK fields (acknowledge data code group) of frames 620 and 640 shown in Figure 3.

Regarding claim 7, "generating an acknowledge non-payload bit string corresponding to a pre-programmed packet acknowledge register" is anticipated by the TYPE fields (acknowledge non-payload bit string) of frames 620 and 640 shown in Figure 3.

Regarding claim 8, "generating an acknowledge data bit string having at least one acknowledge parity bit and at least one acknowledge identification bit" is anticipated by the ACK field (parity field) in the acknowledgement frames 620 and 640 of Figure 3.

Regarding claim 9, "a first acknowledge parity bit corresponding to a parity of said acknowledge control code group and a second acknowledge parity bit corresponding to a parity of said acknowledge data code group" is anticipated by the ACK field (parity field) in the acknowledgement frames 620 and 640 of Figure 3.

Regarding claim 10, "determining if at least one request parity bit for the packet request message is valid and determining if a request control code group message is valid" is anticipated by the distinguishing between an acknowledgement frame and a message frame using the TYPE field (request control code group) as spoken of on column 12, lines 36-43 as well as checking whether the parity matches parity bits comprised in the message frame (request parity bit) as described in column 13, lines 25-30.

Regarding claim 11, "comparing an acknowledge identification parameter associated with the request acknowledge message to a stored list of valid acknowledge identification parameters" is anticipated by the comparison of channel fields of a message and an acknowledgement spoken of in column 4, lines 38-48 where channel

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numbers (request and/or ACK identification parameters) correspond to a predetermined range of numbers (list of valid ACK identification parameters) as stated in column 6, lines 17-20. "Determining if an acknowledge control code group associated with the request acknowledge message is valid; and determining if at least one acknowledge parity parameter is satisfied" is anticipated by the distinguishing between an acknowledgement frame and a message frame using the TYPE field (acknowledge control code group) as spoken of on column 12, lines 36-43 as well the ACK field in the acknowledgement frames 620 and 640 of Figure 3 as well as on column 11, lines 55-58, that is used to indicate whether a message has been received correctly.

Regarding claim 12, "determining if a first acknowledge parity bit associated with the acknowledge identification parameter is satisfied and determining if a second acknowledge parity bit associated with the acknowledge control code group is satisfied" is anticipated by the ACK field in the acknowledgement frames 620 and 640 of Figure 3 as well as on column 11, lines 55-58, that is used to indicate whether a message has been received correctly.

Regarding claim 14, "transmitting a packet request message from a first station to a second station" is anticipated by the activation message 500 sent by apparatus 100 (first station) to apparatus 101 (second station) of Figure 2.

"The packet request message having a first identification number, a first control code group, and a first parity parameter associated therewith" is anticipated by the channel field (first identification number) of frame 630 of Figure 3, TYPE field (first

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control code group) of frame 630 of Figure 3, and the parity bits comprised in a message frame spoken of in column 13, lines 25-30 and shown in Figure 3.

"Storing the first identification number associated with the packet request message" is anticipated by storage means 300, which stores channel associated applications as stated in column 12, lines 60-64.

"Transmitting a request acknowledge message from said second station to said first station" is anticipated by the acknowledgement frame 502 sent from apparatus 101 (second station) to apparatus 100 (first station) of Figure 2.

"The request acknowledge message having a second identification number, a second control group, and a second parity parameter associated therewith" is anticipated by the channel field (second identification number) of frame 640 of Figure 3, TYPE field (second control group) of frame 640 shown in Figure 3, and the ACK field (parity field) in the acknowledgement frame 640 of Figure 3.

"Determining if the first and second control groups are valid" is anticipated by the distinguishing between an acknowledgement frame and a message frame using the TYPE field (control code group) as spoken of on column 12, lines 36-43.

"Determining if the second identification number matches the first identification number" is anticipated by the channel field comparison spoken of in column 4, lines 43-47.

"Determining if the first and second parity parameters are valid" is anticipated by the checking of whether the parity matches parity bits comprised in the message frame (first parity parameter) as described in column 13, lines 25-30 as well as the ACK field

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(second parity parameter) in the acknowledgement frames 620 and 640 of Figure 3 as well as on column 11, lines 55-58, that is used to indicate whether a message has been received correctly.

“Wherein the first control group and the second control group are configured to identify whether a frame is a control frame or a data frame” is anticipated by the TYPE fields (control groups) shown in Figure 3 and spoken of on column 12, lines 36-43 that are used to distinguish between an acknowledgement frame (control) and a message frame (data).

Lastly, “wherein the first identification number and the second identification number are configured to correlate the packet request message with a corresponding request acknowledge message” is anticipated by the channel field (first identification number) shown in group frame 630 (packet request message) of Figure 3 that is copied (correlates) to the channel field (second identification number) of acknowledgment frame 640 (request acknowledgement message) of Figure 3 and that is used to filter acknowledgement messages as spoken of on column 4, lines 38-48 and column 12, lines 19-28.

Regarding claim 16, “the step of generating the packet request message” is anticipated by the activation message 500 sent by apparatus 100 (first station) to apparatus 101 (second station) of Figure 2. “Wherein said generated packet request message includes a first control group bit string, a first identification number bit string, a first parity bit corresponding to the first control group bit string, and a second parity bit corresponding to the identification number bit string” is anticipated by the channel field

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(first identification number bit string) of frame 630 of Figure 3, TYPE field (first control group bit string) of frame 630 of Figure 3, and the parity bits comprised in a message frame spoken of in column 13, lines 25-30.

Regarding claim 17, "generating the request acknowledge message" is anticipated by the acknowledgement frame 502 sent from apparatus 101 (second station) to apparatus 100 (first station) of Figure 2. "Wherein said generated request acknowledge message includes a second control group bit string, a second identification number bit string, a third parity bit corresponding to the second control group bit string, and a fourth parity bit corresponding to the second identification number bit string" is anticipated by the channel field (second identification number bit string) of frame 640 of Figure 3, TYPE field (second control group bit string) of frame 640 of Figure 3, and the ACK field (parity field) in the acknowledgement frames 620 and 640 of Figure 3.

Regarding claim 18, "comparing the first identification number to the second identification number; and determining if the first identification number is identical to the second identification number" is anticipated by the channel field comparison spoken of in column 4, lines 43-47.

Regarding claim 19, "receiving the first and second control groups in a flow logic control module; and determining if the first and second control groups are of a valid and recognized format" is anticipated by the distinguishing between an acknowledgement frame and a message frame in apparatus 101 (flow logic control module) of Figure 2 using the TYPE field (control code group) as spoken of on column 12, lines 36-43.

Regarding claim **20**, “wherein the first parity parameter further comprises a request identification parity bit and a request control code group parity bit” is anticipated by the parity bits comprised in a message frame spoken of in column 13, lines 25-30 as well as the channel field shown in frame 630 of Figure 3.

Regarding claim **21**, “determining if the request identification parity bit is valid and determining if the request control code group parity bit is valid” is anticipated by the checking of whether the parity matches parity bits comprised in the message frame (request parity bit) as described in column 13, lines 25-30.

Regarding claim **22**, “determining if the request identification parity bit represents the parity of the first identification number” is anticipated by the checking of whether the parity matches parity bits comprised in the message frame (request parity bit) as described in column 13, lines 25-30.

Regarding claim **23**, “determining if the request control code group parity bit represents the parity of the first control code group” is anticipated by the checking of whether the parity matches parity bits comprised in the message frame (request parity bit) as described in column 13, lines 25-30.

Regarding claim **24**, “wherein the second parity parameter further comprises an acknowledge identification parity bit and an acknowledge control code group parity bit” is anticipated by the ACK field (parity field) in the acknowledgement frames 620 and 640 of Figure 3.

Regarding claim **25**, “determining if the acknowledge identification parity bit is valid and determining if the acknowledge control code group parity bit is valid” is

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anticipated by the ACK field (parity parameter) in the acknowledgement frames 620 and 640 of Figure 3 as well as on column 11, lines 55-58, that is used to indicate whether a message has been received correctly.

Regarding claim **26**, "determining if the acknowledge identification parity bit represents the parity of the second identification number" is anticipated by the ACK field (parity parameter) in the acknowledgement frames 620 and 640 of Figure 3 as well as on column 11, lines 55-58, that is used to indicate whether a message has been received correctly.

Regarding claim **27**, "determining if the acknowledge control code group parity bit represents the parity of the second control code group" is anticipated by the ACK field (parity parameter) in the acknowledgement frames 620 and 640 of Figure 3 as well as on column 11, lines 55-58, that is used to indicate whether a message has been received correctly.

Regarding claim **28**, "a first transmitting unit for transmitting a packet request message from a first station to a second station" is anticipated by the activation message 500 sent by message sending means 200 (first transmitting unit) from apparatus 100 (first station) to apparatus 101 (second station) of Figure 2.

"The packet request message including a first identification number, a first control code group, and a first parity parameter associated therewith" is anticipated by the channel field (first identification number) of frame 630 of Figure 3, the TYPE field (first control code group) of frame 630 of Figure 3, and the parity bits comprised in a message frame spoken of in column 13, lines 25-30 and shown in Figure 3.

"Storage unit for storing the first identification number associated with the packet request message" is anticipated by storage means 300, which stores channel associated applications as stated in column 12, lines 60-64.

"A second transmitting unit for transmitting a request acknowledge message from said second station to said first station" is anticipated by the acknowledgement frame 502 sent by acknowledgement sending means (second transmitting unit) 220 from apparatus 101 (second station) to apparatus 100 (first station) of Figure 2.

"The request acknowledge message having a second identification number, a second control group, and a second parity parameter associated therewith" is anticipated by the channel field (second identification number) of frame 640 of Figure 3, TYPE field (second control group) of frame 640 of Figure 3, and the ACK field (parity field) in the acknowledgement frames 620 and 640 of Figure 3.

"At least one flow logic unit for determining if the first and second control groups are valid" is anticipated by the distinguishing between an acknowledgement frame and a message frame in apparatus 101 (flow logic control module) of Figure 2 using the TYPE field (control group) as spoken of on column 12, lines 36-43.

"Determining if the second identification number matches the first identification number" is anticipated by the channel field comparison spoken of in column 4, lines 43-47.

"Determining if the first and second parity parameters are valid" is anticipated by the checking of whether the parity matches parity bits comprised in the message frame (first parity parameter) as described in column 13, lines 25-30 as well as the ACK field

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(second parity parameter) in the acknowledgement frames 620 and 640 of Figure 3 as well as on column 11, lines 55-58, that is used to indicate whether a message has been received correctly.

“Wherein the first control group and the second control group are configured to identify whether a frame is a control frame or a data frame” is anticipated by the TYPE fields (control groups) shown in Figure 3 and spoken of on column 12, lines 36-43 that are used to distinguish between an acknowledgement frame (control) and a message frame (data).

Lastly, “wherein the first identification number and the second identification number are configured to correlate the packet request message with a corresponding request acknowledge message” is anticipated by the channel field (first identification number) shown in group frame 630 (packet request message) of Figure 3 that is copied (correlates) to the channel field (second identification number) of acknowledgment frame 640 (request acknowledgement message) of Figure 3 and that is used to filter acknowledgement messages as spoken of on column 4, lines 38-48 and column 12, lines 19-28.

Regarding claim 29, “wherein said first transmitting unit further comprises a first high speed interface of a first network switch” is anticipated by message sending means 200 (first transmitting unit) of apparatus 100 (first network switch) shown in Figure 2.

Regarding claim 30, “wherein said second transmitting unit further comprises a second high speed interface of a second network switch” is anticipated by

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acknowledgement sending means 220 (second transmitting unit) of apparatus 101 (second network switch) shown in Figure 2.

Regarding claim 31, "wherein said storage unit further comprises a memory within said first transmitting unit" is anticipated by storage means 300 of apparatus 100 coupled to message sending means 200 in Figure 2.

Regarding claim 32, "a first flow control logic module, said first flow control logic module being positioned within a first network switch" is anticipated by channel activation means 240 (first flow control logic module) of apparatus 100 (first network switch). "A second flow control logic module, said second flow control logic module being positioned within a second network switch" is anticipated by channel activation means 240 (second flow control logic module) of apparatus 101 (second network switch).

Regarding claims 33, 35, and 37, a packet request message comprising an ordered set is anticipated by frames 610 and 630 of Figure 3.

Regarding claims 34, 36, and 38, a request acknowledge message comprising an ordered set is anticipated by frames 620 and 640 of Figure 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims **13 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Beuk et al. (U.S. 5,774,673) ("Beuk") in view of Meyer et al. (U.S. 6,611,495) ("Meyer").

Regarding claims **13 and 15**, *Beuk* teaches the methods of claims **1 and 14** as described above. *Beuk* does not teach the starting of a timer upon transmission of a packet request message and retransmitting the message if a predetermined period of time has passed. However, *Meyer* discloses a retransmission timer (REXMT) in column 2, lines 41-56 that times packet transmission according to a predetermined time period.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art given these references to combine the methods of each of claims **1 and 14** as taught in *Beuk* with a retransmission timer as described in *Meyer*. A motivation for doing so would be in order to have an effective transmission error recovery procedure as stated in column 2, lines 41-56 of *Meyer*.

(10) Response to Argument

Regarding claim **1**, Applicant argues that *Beuk* (U.S. 5,774,673) contains no disclosure regarding the TYPE field being a request non-payload bit string corresponding to a pre-programmed packet request register, and a control bit string, identification bit string, and at least one parity bit.

However, page 3 of the Final Office Action provides rationale that supports this portion of the rejection of claim **1**. It is stated how the TYPE fields (non-payload bit string) of frames 610 and 630 of Figure 3 of *Beuk* have a correspondence with a particular receiving means (register) 210 of Figure 2. It is also stated how the TYPE

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fields in the frames of Figure 3 correspond to a "control bit string" as spoken of on column 12, lines 36-43, while the channel fields shown in frames 630 and 640 of Figure 3 and spoken of on column 11, line 66 – column 12, line 2 correspond to an "identification bit string", and the parity bits comprised in a message frame shown in the frames of Figure 3 and spoken of in column 13, lines 25-30, as well as the one bit ACK field (parity bit) in the acknowledgement frames 620 and 640 of Figure 3 that correspond to "at least one parity bit".

Applicant also argues that the message receiving means 210 of Figure 2 of *Beuk* does not correspond to the pre-programmed packet request register of claim 1, and that *Beuk* fails to disclose or suggest that the message receiving means is pre-programmed and that it corresponds to a request non-payload bit string.

However, as provided in the previous Office Action, the TYPE field of frames 610 and 630 of Figure 3 of *Beuk* is a multiple bit field (bit string) separate from the DATA (payload) field that corresponds to a particular message receiving means 210 (packet request register) of Figure 2. The TYPE field provides indication of either a message or an acknowledgement frame as well as either a broadcast or group frame as spoken of on column 12, lines 36-43. Based upon this indication, each frame corresponds to either a message receiving means 210 (if TYPE indicates a message) or an acknowledgment receiving means 230 (if TYPE indicates an acknowledgement) that the particular frame is forwarded to. Therefore, it is held that the TYPE field of the frames 610 and 630 of Figure 3 provide a correspondence with a particular message receiving means 210.

Regarding the limitation, "pre-programmed", as no further explanation is given to this term in the claim, and since the message receiving means 210 of Figure 2 is configured (pre-programmed) to receive messages from message sending means 200, it is held that the message receiving means 210 anticipates this limitation.

Regarding claims **14 and 28**, Applicant argues that *Beuk* does not disclose or suggest that the channel field in group frame 630 is used to identify and correlate a specific request message with a corresponding acknowledgement message and rather is used to identify a communication channel. Applicant further alleges that copying a field to another field is not the same as correlating a request message with an acknowledge message, as recited in the present claims. As stated before, while it is agreed that the channel field of *Beuk* does identify a communication channel, it is held that the channel field also "correlates a packet request message with a corresponding request acknowledge message" according to the following rationale.

As provided in the Final Office Action, *Beuk* teaches the channel field (identification number) shown in group frame 630 (packet request message) of Figure 3, that is copied (correlates) to the channel field of acknowledgement frame 640 (request acknowledge message) of Figure 3 and that is used to filter acknowledgement messages as spoken of on column 4, lines 38-48, and column 12, lines 19-28. As stated on column 4, lines 38-48, a receiving apparatus, which receives a group frame, specifying a specific communication channel, transmits in response an acknowledgement frame, which specifies the same communication channel (copied channel field). Then the apparatus, which sent the original group frame and now

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receives the acknowledgement frame, can compare the channels specified in both frames (determine whether the fields match) in order to filter out acknowledgments that are intended for other apparatuses. It is held that this copying of the channel field from the request message to the acknowledgment message provides a correlation between these two messages.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Michael J. Moore, Jr. MM

Dated: January 18, 2007

Conferees:

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1/25/07

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